

CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

- 1 1. A method for managing process control in a graphical user interface, the
2 method comprising the steps of:
3 displaying a plurality of objects on a graphical user interface, each of the
4 objects corresponding to one or more steps in a sequential process;
5 in response to the proper object in the sequential process being selected and
6 the corresponding step being successfully completed, visually distinguishing the
7 object to indicate that the corresponding step has been successfully completed; and
8 in response to one of the objects corresponding to a previously completed step
9 being selected and successfully completed, performing the following steps:
10 determining whether any other previously completed steps are
11 dependent on the changes made in the previously completed step; and
12 visually distinguishing the objects corresponding to the other
13 previously completed steps to indicate that they are to be completed again.
- 1 2. The method of claim 1, wherein the other previously completed steps are
2 completed again in a predefined order.

1 3. The method of claim 2, further comprising the step of visually distinguishing
2 the objects corresponding to the other previously completed steps to indicate that they
3 have been completed.

1 4. The method of claim 1, wherein the steps of:
2 visually distinguishing the object to indicate that the corresponding step has
3 been successfully completed; and
4 visually distinguishing the objects corresponding to the other previously
5 completed steps to indicate that they are to be completed again;
6 comprise displaying another object adjacent to the object.

1 5. The method of claim 1, wherein the steps of:
2 visually distinguishing the object to indicate that the corresponding step has
3 been successfully completed; and
4 visually distinguishing the objects corresponding to the other previously
5 completed steps to indicate that they are to be completed again;
6 comprise modifying the display of the object.

1 6. The method of claim 1, wherein the steps in the sequential process are related
2 to controlling an automatic x-ray inspection system configured to detect
3 manufacturing defects in printed circuit boards.

1 7. The method of claim 1, further comprising the step of successfully completing
2 the corresponding steps in the sequential process.

1 8. The method of claim 7, wherein the step of successfully completing the
2 corresponding steps in the sequential process occurs via a separate window of the
3 graphical user interface.

1 9. A computer program embodied in a computer-readable medium for managing
2 process control in a graphical user interface, the computer program comprising logic
3 configured to:

4 display a plurality of objects on a graphical user interface, each of the objects
5 corresponding to one or more steps in a sequential process;
6 in response to the proper object in the sequential process being selected and
7 the corresponding step being successfully completed, visually distinguish the object to
8 indicate that the corresponding step has been successfully completed; and

9 in response to one of the objects corresponding to a previously completed step
10 being selected and successfully completed, perform the following steps:

11 determine whether any other previously completed steps are dependent
12 on the changes made in the previously completed step; and

13 visually distinguish the objects corresponding to the other previously
14 completed steps to indicate that they are to be completed again.

1 10. The computer program of claim 9, wherein the logic is further configured to
2 enable a user to complete the other previously completed steps again in a predefined
3 order.

1 11. The computer program of claim 9, wherein the logic is further configured to
2 visually distinguish the objects corresponding to the other previously completed steps,
3 after they have been successfully completed again, to indicate that they have been
4 completed again.

1 12. The computer program of claim 9, wherein the logic is further configured to:
2 visually distinguish the object to indicate that the corresponding step has been
3 successfully completed and visually distinguish the objects corresponding to the other
4 previously completed steps to indicate that they are to be completed again by
5 displaying another object adjacent to the corresponding object.

1 13. The computer program of claim 9, wherein the logic is further configured to:
2 visually distinguish the object to indicate that the corresponding step has been
3 successfully completed and visually distinguish the objects corresponding to the other
4 previously completed steps to indicate that they are to be completed again by
5 modifying the display of the corresponding object.

1 14. The computer program of claim 9, wherein the steps in the sequential process
2 are related to controlling an automatic x-ray inspection system configured to detect
3 manufacturing defects in printed circuit boards.

1 15. A system for managing process control in a graphical user interface, the
2 system comprising:

3 logic configured to:

4 display a plurality of objects on a graphical user interface, each of the
5 objects corresponding to one or more steps in a sequential process;

6 in response to the proper object in the sequential process being selected
7 and the corresponding step being successfully completed, visually distinguish
8 the object to indicate that the corresponding step has been successfully
9 completed; and

10 in response to one of the objects corresponding to a previously
11 completed step being selected and successfully completed, perform the
12 following steps:

13 determine whether any other previously completed steps are dependent
14 on the changes made in the previously completed step; and

15 visually distinguish the objects corresponding to the other previously
16 completed steps to indicate that they are to be completed again;

17 a processing device configured to implement the logic; and

18 a display device configured to support the graphical user interface.

1 16. The system of claim 15, wherein the logic is further configured to enable a
2 user to complete the other previously completed steps again in a predefined order.

1 17. The system of claim 15, wherein the logic is further configured to visually
2 distinguish the objects corresponding to the other previously completed steps, after
3 they have been successfully completed again, to indicate that they have been
4 completed again.

1 18. The system of claim 15, wherein the logic is further configured to:
2 visually distinguish the object to indicate that the corresponding step has been
3 successfully completed and visually distinguish the objects corresponding to the other
4 previously completed steps to indicate that they are to be completed again by
5 displaying another object adjacent to the corresponding object.

1 19. The system of claim 15, wherein the logic is further configured to:
2 visually distinguish the object to indicate that the corresponding step has been
3 successfully completed and visually distinguish the objects corresponding to the other
4 previously completed steps to indicate that they are to be completed again by
5 modifying the display of the corresponding object.

- 1 20. The computer program of claim 15, wherein the steps in the sequential process
- 2 are related to controlling an automatic x-ray inspection system configured to detect
- 3 manufacturing defects in printed circuit boards.